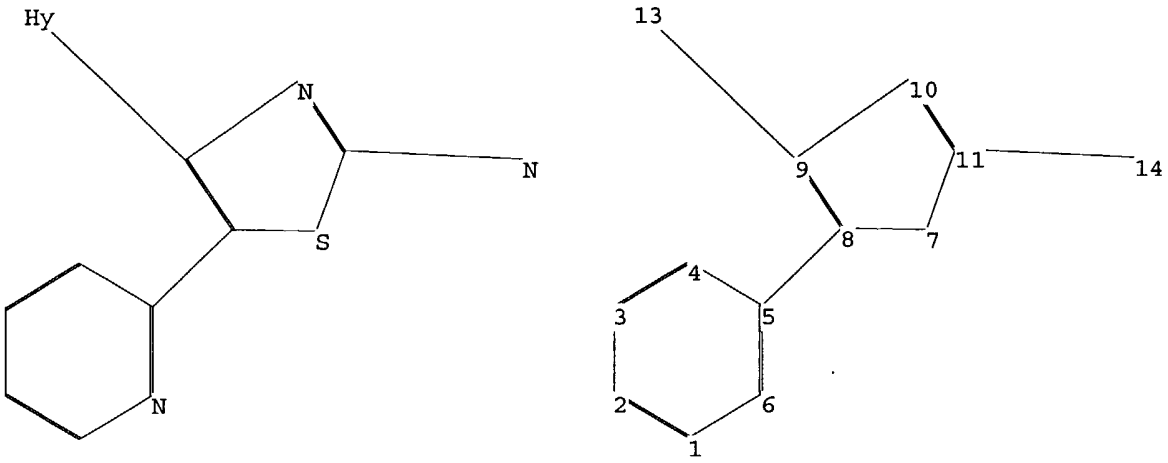

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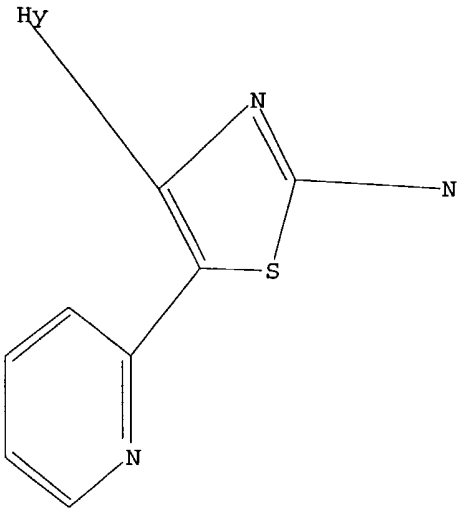
13 14
ring nodes :
1 2 3 4 5 6 7 8 9 10 11
chain bonds :
5-8 9-13 11-14
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-11 8-9 9-10 10-11
exact/norm bonds :
9-10 9-13 10-11 11-14
exact bonds :
5-8 7-8 7-11 8-9
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 : 7 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 13:CLASS 14:CLASS

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful
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FULL SCREEN SEARCH COMPLETED - 478 TO ITERATE

100.0% PROCESSED 478 ITERATIONS 18 ANSWERS
SEARCH TIME: 00.00.01

L2 18 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.42	155.90

FILE 'CAPLUS' ENTERED AT 11:05:12 ON 24 AUG 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 24 Aug 2004 VOL 141 ISS 9
FILE LAST UPDATED: 23 Aug 2004 (20040823/ED)

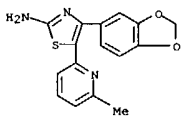
This file contains CAS Registry Numbers for easy and accurate substance identification.

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:267326 CAPLUS
DOCUMENT NUMBER: 140:287371
TITLE: Preparation of 2-(oxazol-4-yl)pyridines and related compounds as transforming growth factor (TGF) inhibitors for the treatment of cancer and fibrotic diseases
INVENTOR(S): Blumberg, Laura Cook; Munchhof, Michael John
PATENT ASSIGNEE(S): Pfizer Products Inc., USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026863	A1	20040401	WO 2003-IB3823	20030908
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004110797	A1	20040610	US 2003-667187	20030917
PRIORITY APPLN. INFO.:			US 2002-412120P P	20020918
			US 2003-471265P P	20030516
			US 2003-484581P P	20030702

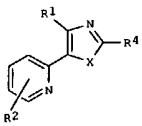
OTHER SOURCE(S): MARPAT 140:287371
GI

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



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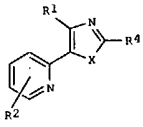

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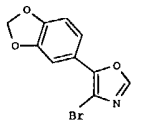

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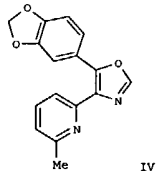

IV

AB Title compds. I and II [X = O, S; R1 = (un)saturated aromatic, monocyclic, bicyclic, etc.; R2 = (R3)s; R3 =H, halo, halo-alkyl, etc.; s = 1-5; R4 = H, halo, halo-alkyl, etc.] and their pharmaceutically acceptable salts were prepared For example, Stille coupling of bromide III e.g., prepared from benzo[1,3]dioxole-5-carboxaldehyde in 2-steps, and 2-bromo-6-methylpyridine afforded oxazole IV in 70% yield. In β1-transforming growth factors kinase assays, 10-examples of compds. I and II exhibited IC50 values ranging from 19.7-600 nM. Of note, compds. I and II also possess differential activity, i.e. are selective for β1-TGF over β2-TGF and β3-TGF. Compds. I and II are claimed useful for the treatment of TGF-related disease states including cancer and fibrotic diseases.
IT **676165-90-5P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-(oxazol-4-yl)pyridines and related compds. as transforming growth factor (TGF) inhibitors for the treatment of cancer and fibrotic diseases)
RN 676165-90-5 CAPLUS
CN 2-Thiazolamine, 4-(1,3-benzodioxol-5-yl)-5-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:120851 CAPLUS
DOCUMENT NUMBER: 140:181331
TITLE: Preparation of 2-phenylpyridin-4-yl heterocycles as selective activin-like kinase-5 inhibitors useful against fibrosis and other disorders
INVENTOR(S): Dodic, Nerina; Gellibert, Francoise Jeanne
PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA
SOURCE: PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013135	A1	20040212	WO 2003-EP8496	20030729
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			GB 2002-17751 A	20020731
			GB 2003-14698 A	20030624

OTHER SOURCE(S): MARPAT 140:181331
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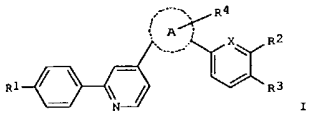
L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



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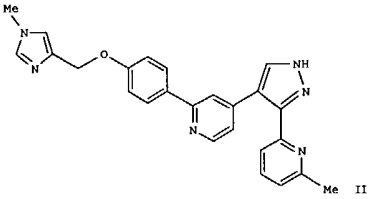


II

AB This invention relates to novel 2-phenylpyridin-4-yl heterocycles (shown as I; variables defined below; e.g. II) that are inhibitors of the transforming growth factor, ('TGF')-β signaling pathway, in particular, the phosphorylation of Smad-2 or Smad-3 by the TGF-β type I or activin-like kinase ('ALK')-5 receptor, methods for their preparation and their use in medicine, specifically in the treatment and prevention of a disease state mediated by this pathway, e.g. fibrosis (no data). All examples of I show ALK-5 receptor modulator activity (having IC50 values at 0.4-275 nM) and TGF-β cellular activity (having IC50 values at 0.001-10 μM). 4-[4-[4-[2-tert-Butyl-5-(6-methylpyridin-2-yl)-1H-imidazol-4-yl]pyridin-2-yl]phenyl]morpholine showed an ALK-5 receptor modulator activity of 34 nM and TGF-β cellular activity of 183 nM. N-(tetrahydropyran-4-yl)-4-[4-[2-isopropyl-5-(6-methylpyridin-2-yl)-1H-imidazol-4-yl]pyridin-2-yl]benzamide showed an ALK-5 receptor modulator activity of 25 nM and TGF-β cellular activity of <14 nM. Although the methods of preparation are not claimed, >150 example prepns. of I and .apprx.130 example prepns. of intermediates are included. For example, II was prepared in 37% yield by reacting 4-[4-[3-(6-methylpyridin-2-yl)-1-trityl-1H-pyrazol-4-yl]pyridin-2-yl]phenol and NaH in DMF with 1-methyl-4-hydroxymethylimidazole followed by removal of the trityl group using HCl in MeOH; details are also given for preparation of the reactants.

For I: A is furan, dioxolane, thiophene, pyrrole, imidazole, pyrrolidine, pyran, pyridine, pyrimidine, morpholine, piperidine, oxazole, isoxazole, oxazoline, oxazolidine, thiazole, isothiazole, thiadiazole, benzofuran, indole, isoindole, indazole, imidazopyridine, quinazoline, quinoline, isoquinoline, pyrazole or triazole; X is N or CH; R1 is H, C1-6alkyl, C1-6alkenyl, C1-6alkoxy, halo, cyano, perfluoro C1-6alkyl, perfluoroC1-6alkoxy, -NR5R6, -(CH2)nNR5R6, -O(CH2)nOR7, -O(CH2)n-Het, -O(CH2)nNR5R6, -CONR5R6, -CO(CH2)nNR5R6, -SO2R7, -SO2NR5R6, -NR5SO2R7, -NR5COR7, -O(CH2)nCONR5R6, -NR5CO(CH2)nNR5R6 or -C(O)R7; R2 is H, C1-6alkyl, halo, cyano or perfluoroC1-6alkyl; R3 is H or halo; R4 is H, halo, Ph, C1-6alkyl or -NR5R6; addnl. details including provisos are given in the claims.

IT **656258-00-3P**, 4-[2-(4-Chlorophenyl)pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-01-4P**, 4-[2-[4-(Trifluoromethoxy)phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-02-5P**, 4-[2-[4-(Ethanesulfonyl)phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-03-6P**, 4-[2-[4-[[(Tetrahydropyran-4-yl)amino]carbonyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-04-7P**, 4-[2-[4-[(Morpholin-4-yl)carbonyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-05-8P**, 4-[2-[4-[(4-Ethylpiperazin-1-yl)carbonyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-06-9P**, 4-[2-[4-[(Morpholin-4-yl)methyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-07-0P**, 4-[2-[4-(Morpholin-4-yl)phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-08-1P**, 4-[2-[4-[2-(Pyrrolidin-1-yl)ethoxy]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-09-2P**, 4-[2-[4-(Aminocarbonylmethoxy)phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-10-5P**, 4-[2-[4-[[(Morpholin-4-yl)carbonyl]methoxy]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-11-6P**, 4-[2-[4-[(Pyrrolidin-1-yl)methyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-12-7P**, 4-[2-[4-[(Dimethylamino)methyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-13-8P**, 4-[2-[4-[[(Tetrahydropyran-4-yl)amino]carbonyl]phenyl]pyridin-4-yl]-5-(pyridin-2-yl)-1,3-thiazol-2-amine **656258-14-9P**, 4-[2-[4-(Morpholin-4-yl)phenyl]pyridin-4-yl]-5-(pyridin-2-yl)-1,3-thiazol-2-amine

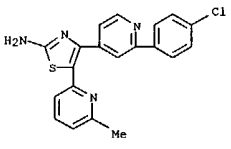
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of 2-phenylpyridin-4-yl heterocycles as selective activin-like kinase-5 inhibitors useful against fibrosis and other disorders)

RN 656258-00-3 CAPLUS

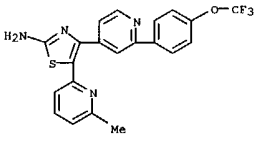
CN 2-Thiazolamine, 4-[2-(4-chlorophenyl)-4-pyridinyl]-5-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-01-4 CAPLUS

CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(trifluoromethoxy)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)



RN 656258-02-5 CAPLUS

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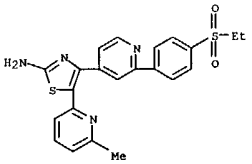
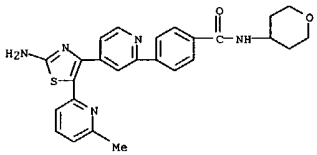


RN 656258-03-6 CAPLUS

CN Benzamide, 4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]-N-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-04-7 CAPLUS

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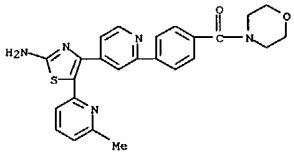
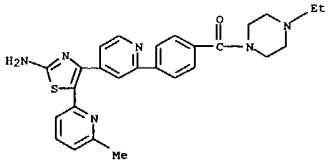


RN 656258-05-8 CAPLUS

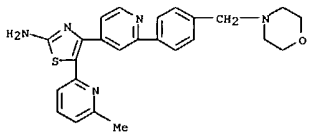
CN Piperazine, 1-[4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]benzoyl]-4-ethyl- (9CI) (CA INDEX NAME)



RN 656258-06-9 CAPLUS

CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(4-morpholinylmethyl)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-07-0 CAPLUS
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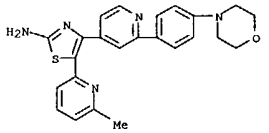

RN 656258-08-1 CAPLUS
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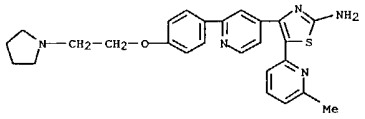
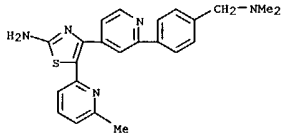


RN 656258-09-2 CAPLUS
CN Acetamide, 2-[4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]phenoxy]- (9CI) (CA INDEX NAME)

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-13-8 CAPLUS
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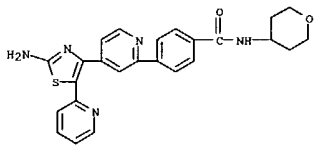

RN 656258-14-9 CAPLUS
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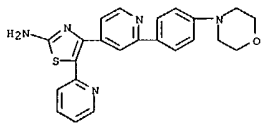
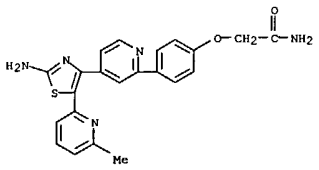


L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-10-5 CAPLUS
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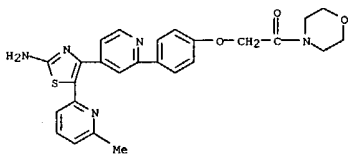
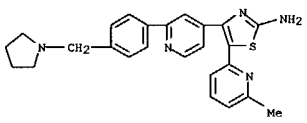


RN 656258-11-6 CAPLUS
CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(1-pyrrolidinylmethyl)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)



RN 656258-12-7 CAPLUS
CN 2-Thiazolamine, 4-[2-[4-[(dimethylamino)methyl]phenyl]-4-pyridinyl]-5-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:120850 CAPLUS
DOCUMENT NUMBER: 140:163858
TITLE: Preparation of aminothiazoles as inhibitors of the transforming growth factor-beta (TGF-β) signalling pathway
INVENTOR(S): Dodic, Nerina; Gellibert, Francoise Jeanne
PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013134	A2	20040212	WO 2003-EP8385	20030729
WO 2004013134	A3	20040325		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-17787 A 20020731

OTHER SOURCE(S): MARPAT 140:163858
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein either A = S and B = N, or A = N and B = S; X = CH or N; R1 = H, alk(en)yl, perfluoro/alkoxy, halo, CN, perfluoroalkyl, NH2 and derivs., (CH2)nNH2 and derivs., CONH2 and derivs., SO2H and derivs., SO2NH2 and derivs., etc.; R2 = H, perfluoro/alkyl, halo, CN; R3 = H, halo; R4 = NH2; n = 1-4 with the proviso that certain compds. are not considered] were prepared as inhibitors of the transforming growth factor-beta (TGF-β) signaling pathway, in particular, the phosphorylation of smad2 or smad3 by the TGF-β type I or activin-like kinase-5 (ALK-5) receptor for treatment and prevention of a disease state mediated by this pathway. For example, II was prepd by reaction of 2-bromo-4-methylpyridine with Me 6-methylpicolinate, Pd-cross coupling with 4-(methoxycarbonyl)phenylboronic acid, hydrolysis, acylation of 4-aminoterahydrofuran with the resulting acid, followed by solid phase cyclocondensation of III with thiourea. II showed an ALK5 receptor modulator activity of 14 nM in an ALK5 fluorescence polarization assay and TGF-β cellular activity of 29 nM in a cellular transcriptional assay. Thus, I are useful for treating or preventing a disease or condition mediated by ALK-5 inhibition, in particular kidney fibrosis.

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

IT **656258-00-3P**, 4-[2-(4-Chlorophenyl)pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-01-4P**,

4-[2-(4-Trifluoromethoxyphenyl)pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-02-5P**, 4-[2-[4-

(Ethanesulfonyl)phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-03-6P**, 4-[2-[4-[[(Tetrahydropyran-4-yl)amino]carbonyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-04-7P**, 4-[2-[4-[(Morpholin-4-yl)carbonyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-05-8P**, 4-[2-[4-[(1-Ethylpiperazin-4-yl)carbonyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-06-9P**, 4-[2-[4-[(Morpholin-4-yl)methyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-07-0P**, 4-[2-[4-(Morpholin-4-yl)phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-08-1P**,

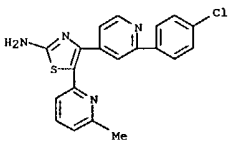
4-[2-[4-[2-(Pyrrolidin-1-yl)ethoxy]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-09-2P**, 4-[2-[4-

[[(Aminocarbonyl)methyl]oxy]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-10-5P**, 4-[2-[4-[[(Morpholin-4-yl)carbonyl]methyl]oxy]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-11-6P**, 4-[2-[4-[(Pyrrolidin-1-yl)methyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-12-7P**, 4-[2-[4-[(Dimethylamino)methyl]phenyl]pyridin-4-yl]-5-(6-methylpyridin-2-yl)-1,3-thiazol-2-amine **656258-13-8P**, 4-[2-[4-[[(Tetrahydropyran-4-yl)amino]carbonyl]phenyl]pyridin-4-yl]-5-(pyridin-2-yl)-1,3-thiazol-2-amine **656258-14-9P**,

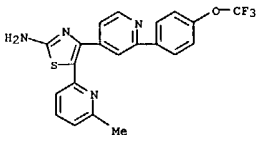
4-[2-[4-(Morpholin-4-yl)phenyl]pyridin-4-yl]-5-(pyridin-2-yl)-1,3-thiazol-2-amine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(inhibitor of TGF-β signaling pathway; preparation of aminothiazoles as
inhibitors of transforming growth factor-beta (TGF-β) signaling pathway)

RN 656258-00-3 CAPLUS
CN 2-Thiazolamine, 4-[2-(4-chlorophenyl)-4-pyridinyl]-5-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

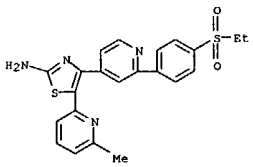
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-01-4 CAPLUS
CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(trifluoromethoxy)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)

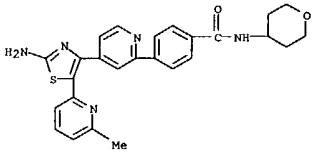


RN 656258-02-5 CAPLUS
CN 2-Thiazolamine, 4-[2-[4-(ethylsulfonyl)phenyl]-4-pyridinyl]-5-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

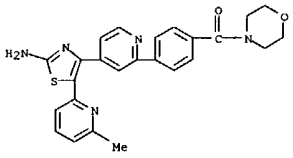


RN 656258-03-6 CAPLUS
CN Benzamide, 4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]-N-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

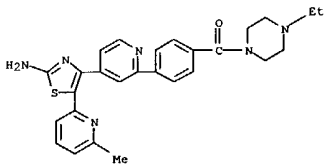
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-04-7 CAPLUS
CN Morpholine, 4-[4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]benzoyl]- (9CI) (CA INDEX NAME)

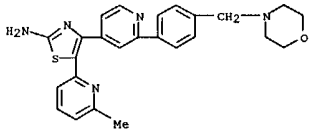


RN 656258-05-8 CAPLUS
CN Piperazine, 1-[4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]benzoyl]-4-ethyl- (9CI) (CA INDEX NAME)

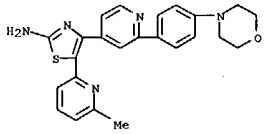


RN 656258-06-9 CAPLUS
CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(4-morpholinylmethyl)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)

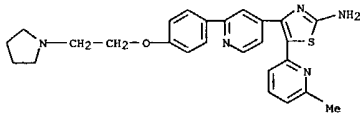
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-07-0 CAPLUS
CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(4-morpholinyl)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)

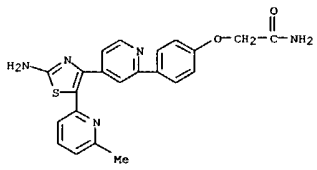


RN 656258-08-1 CAPLUS
CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-[2-(1-pyrrolidinyl)ethoxy]phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)

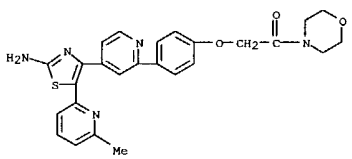


RN 656258-09-2 CAPLUS
CN Acetamide, 2-[4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]phenoxy]- (9CI) (CA INDEX NAME)

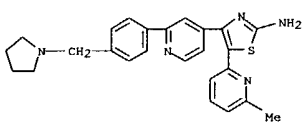
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 656258-10-5 CAPLUS
CN Morpholine, 4-[[4-[4-[2-amino-5-(6-methyl-2-pyridinyl)-4-thiazolyl]-2-pyridinyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

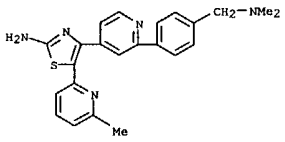


RN 656258-11-6 CAPLUS
CN 2-Thiazolamine, 5-(6-methyl-2-pyridinyl)-4-[2-[4-(1-pyrrolidinylmethyl)phenyl]-4-pyridinyl]- (9CI) (CA INDEX NAME)

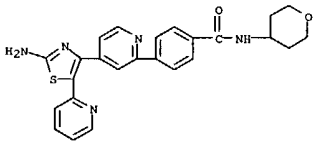


RN 656258-12-7 CAPLUS
CN 2-Thiazolamine, 4-[2-[4-[(dimethylamino)methyl]phenyl]-4-pyridinyl]-5-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

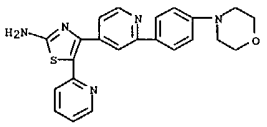
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



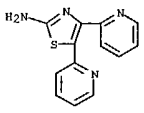
RN 656258-13-8 CAPLUS
CN Benzamide, 4-[4-[2-amino-5-(2-pyridinyl)-4-thiazolyl]-2-pyridinyl]-N-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)



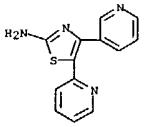
RN 656258-14-9 CAPLUS
CN 2-Thiazolamine, 4-[2-[4-(4-morpholinyl)phenyl]-4-pyridinyl]-5-(2-pyridinyl)- (9CI) (CA INDEX NAME)



L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:22749 CAPLUS
DOCUMENT NUMBER: 74:22749
TITLE: Synthesis of pyridyl- and quinolyl-substituted 2-aminothiazoles
AUTHOR(S): Taurins, Alfred; Blaga, Aurel
CORPORATE SOURCE: Dep. Chem., McGill Univ., Montreal, QC, Can.
SOURCE: Journal of Heterocyclic Chemistry (1970), 7(5), 1137-41
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Five 2-amino-4-(x-pyridyl)- and 2-amino-4-(x-quinolyl)thiazoles (x = 2 or 3) were synthesized by the condensation of thiourea with bromoacetylpyridines and -quinolines. The reaction of pyridyl pyridylmethyl ketones with thiourea and halogens produced four 2-aminothiazoles possessing pyridyl substituents in 4- and 5-positions on the thiazole ring. Treatment of N-(3-pyridyl)- and N-(3-quinolyl)thiourea with α-bromo ketones gave seven 2-(3-pyridyl)amino- and 2-(3-quinolyl)aminothiazoles. The uv spectra of the pyridyl- and quinolyl-substituted 2-aminothiazoles were recorded.
IT **30235-32-6P 30235-33-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 30235-32-6 CAPLUS
CN Pyridine, 2,2'-(2-amino-4,5-thiazolediyl)di- (8CI) (CA INDEX NAME)



RN 30235-33-7 CAPLUS
CN Pyridine, 2-[2-amino-4-(4-pyridyl)-5-thiazolyl]- (8CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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FULL ESTIMATED COST                              19.48     175.38

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                              -2.80      -2.80

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STRUCTURE FILE UPDATES:   23 AUG 2004  HIGHEST RN 731771-88-3
DICTIONARY FILE UPDATES:  23 AUG 2004  HIGHEST RN 731771-88-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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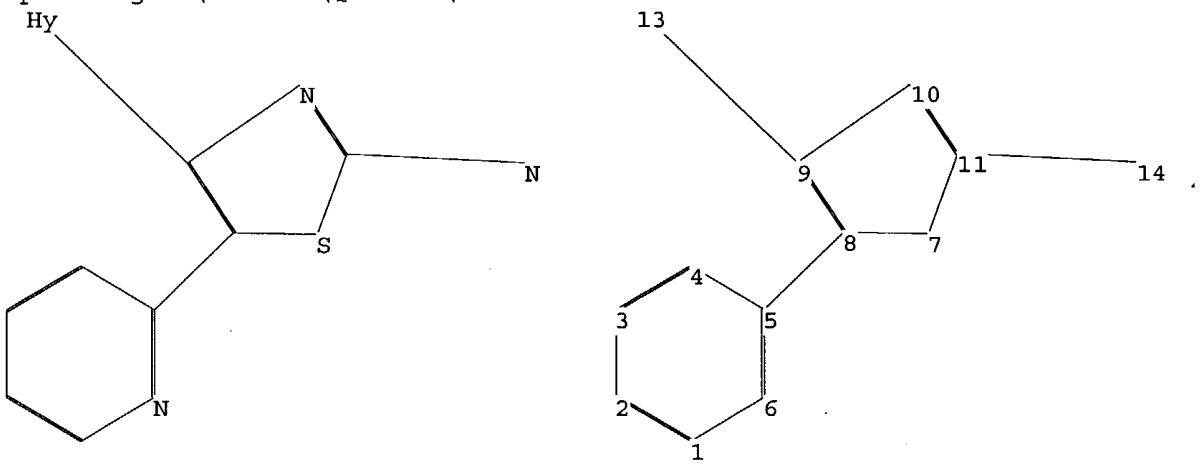


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ring nodes :
1  2  3  4  5  6  7  8  9  10  11
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ring bonds :
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exact/norm bonds :
9-10 9-13 10-11 11-14
exact bonds :
5-8 7-8 7-11 8-9
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 : 7 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 13:CLASS 14:CLASS

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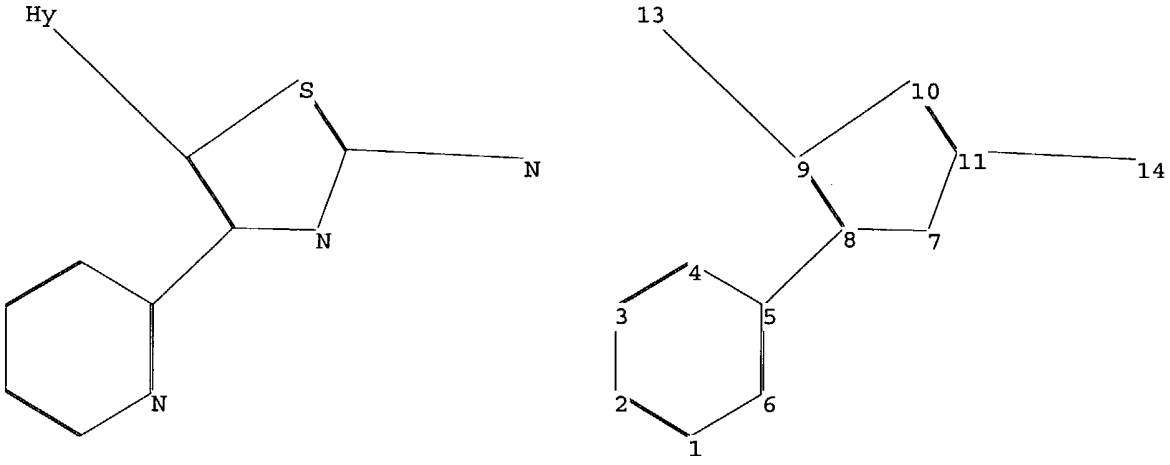

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13 14
ring nodes :
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chain bonds :
5-8 9-13 11-14
ring bonds :
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exact/norm bonds :
7-8 7-11 9-13 11-14
exact bonds :
5-8 8-9 9-10 10-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :

containing 1 : 7 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
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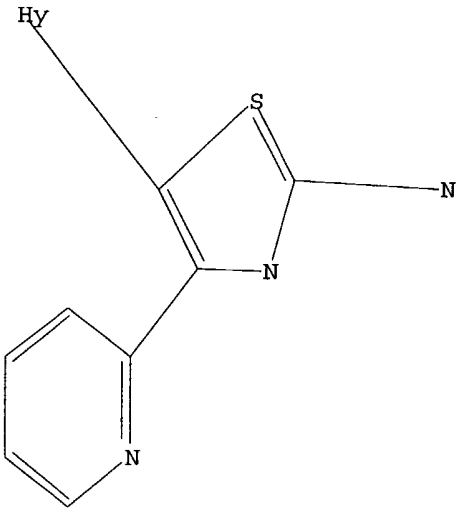

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 157 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

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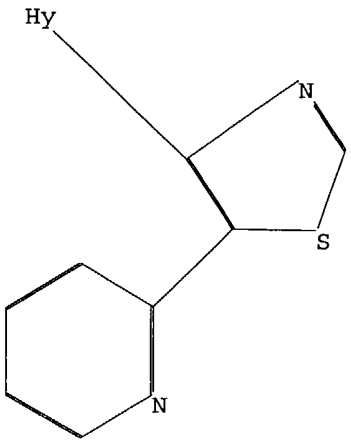

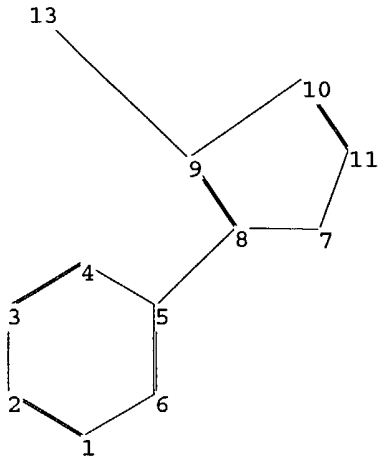

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ring bonds :
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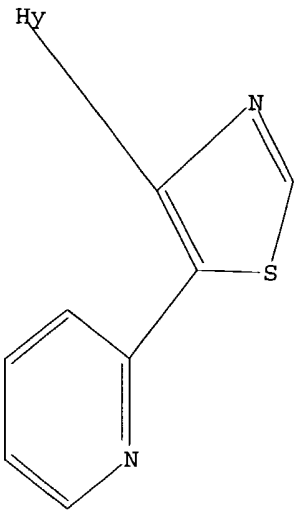
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 : 7 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 13:CLASS

L6 STRUCTURE UPLOADED

=> d
L6 HAS NO ANSWERS
L6 STR



Structure attributes must be viewed using STN Express query preparation.

```
=> s l6 ful
FULL SEARCH INITIATED 11:10:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   1236 TO ITERATE

100.0% PROCESSED    1236 ITERATIONS                          18 ANSWERS
SEARCH TIME: 00.00.01

L7           18 SEA SSS FUL L6

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                              155.42     486.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                0.00      -2.80

FILE 'CAPLUS' ENTERED AT 11:10:23 ON 24 AUG 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
```

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 AUG 2004 HIGHEST RN 731771-88-3
DICTIONARY FILE UPDATES: 23 AUG 2004 HIGHEST RN 731771-88-3

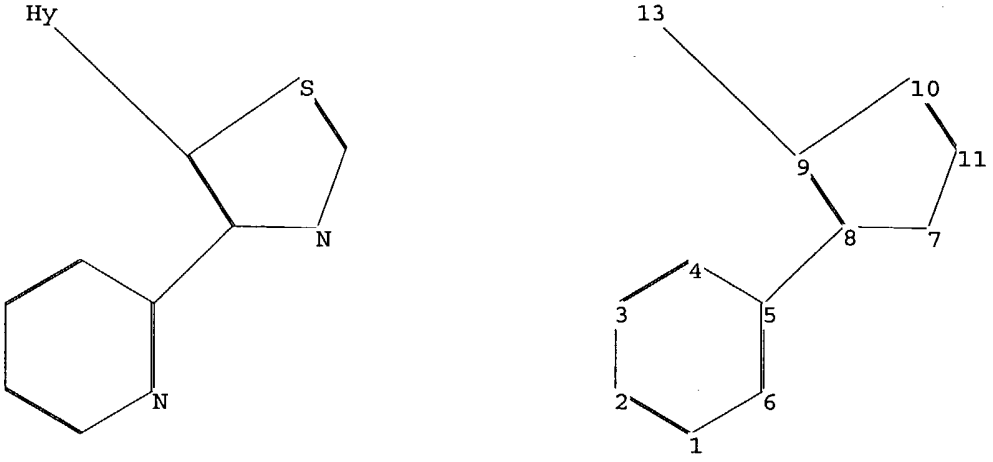
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\STNEXP4\QUERIES\10-667187d.str

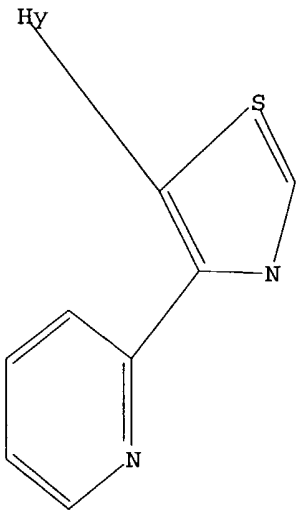


chain nodes :
13
ring nodes :
1 2 3 4 5 6 7 8 9 10 11
chain bonds :
5-8 9-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-11 8-9 9-10 10-11
exact/norm bonds :
7-8 7-11 9-13
exact bonds :
5-8 8-9 9-10 10-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 : 7 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 13:CLASS

L11 STRUCTURE UPLOADED

=> d
L11 HAS NO ANSWERS
L11 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l11 ful
FULL SEARCH INITIATED 11:11:20 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2172 TO ITERATE

100.0% PROCESSED 2172 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L12 0 SEA SSS FUL L11

=>

---Logging off of STN---

=>
Executing the logoff script...